SIEMENS

Data sheet

6ES7647-0KA02-0AA2

SIMATIC IoT2000, input module sink/source, 10x DI, ARDUINO Shield for SIMATIC IoT2020 and IoT2040



General information	
Product type designation	IOT2000
Installation type/mounting	
Mounting	On Arduino interface
Design	Plug-in card
Supply voltage	
Type of supply voltage	24 V DC
Digital inputs	
Number of digital inputs	10
Input voltage	
• for signal "0"	< 5 V DC
 for signal "1" 	> 12 V DC
Input current	
 for signal "0", max. (permissible quiescent current) 	0.9 mA
 for signal "1", typ. 	2.1 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	1.5 ms
— at "1" to "0", max.	1.5 ms
Digital outputs	
Type of digital output	without
	without
Type of digital output	without
Type of digital output EMC	without ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static	± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity	± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference	± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7
Type of digital output EMC Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity to cable-borne interference Interference immunity on signal cables < 30m Emission of conducted and non-conducted interference Interference emission via line/AC current cables Compliance with line harmonic distortion limits Compliance with line harmonic distortion acc. to IEC	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80 % AM acc. to IEC 61000-4-3
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80 % AM acc. to IEC 61000-4-3
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80 % AM acc. to IEC 61000-4-3 No
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80 % AM acc. to IEC 61000-4-3 No
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80 % AM acc. to IEC 61000-4-3 No
Type of digital output EMC Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity Interference immunity to cable-borne interference • Interference immunity to cable-borne interference • Interference immunity on signal cables < 30m	 ± 6 KV contact discharge at the front in accordance with IEC 61000-4-2; ±4 kV, housing contact discharge at the back in accordance with IEC 61000-4-2; ± 8 kV air discharge in accordance with IEC 61000-4-2 ±1 kV acc. to IEC 61000-4-4, Burst 10 V/m for 80 - 2 000 MHz, 80 % AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80 % AM acc. to IEC 61000-4-3 No 20 Yes

FCC	Yes
EMC	CE (industry)
Ambient conditions	
Ambient temperature during operation	
• min.	0°C
• max.	50 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	70 °C
Mechanics/material	
Enclosure material (front)	plastic
Plastic	Yes
Aluminum	No
Stainless steel	No
• Glass	No
Dimensions	
Width	75 mm
Height	57 mm
Depth	32 mm

last modified:

3/25/2023 🖸